

# Trauma Scoring Quick Reference Sheet

## Anatomical Scoring

**Abbreviated Injury Score (AIS)** - This represents the “threat to life” associated with an injury. It is a single digit to the right of the decimal point (known as post dot). AIS Severity Number is ranked on a ordinal scale of 1 to 6:

- 1= Minor
- 2 =Moderate
- 3 =Serious
- 4 =Severe
- 5 =Critical
- 6 =Maximal (Untreatable)

**Note:** Do not stop coding when an AIS-6 injury is present. Assign the AIS codes to all other injuries even though ISS will not change.

**Note:** AIS post dot code 9 “injured but severity unknown” will not calculate an Injury Severity Score (ISS) due to nonspecific description. If no further documentation is available, manually enter the post dot code 1 to calculate an ISS.

**Note:** Avoid using code 9 for closed head injuries. Search the chart for additional information to provide more accurate coding.

Each injury is assigned an (AIS) score and is allocated to one of these **Six Body Regions**:

- 1 Head & Neck
- 2 Face
- 3 Chest
- 4 Abdomen
- 5 Extremities (including Pelvis)
- 6 External

**A Severity Characterization of Trauma (ASCOT)**- ASCOT uses the AP (Anatomical Profile) in place of the ISS and categorizes age into intervals of tens. The elements used in this calculation are: AIS, RTS, Age, Age Units, and Injury Type (Blunt or Penetrating).

**Injury Severity Score (ISS)**- The ISS is defined by the 3 most severely injured body regions and the score is squared to the highest AIS grade.  
( $A^2+B^2+C^2=ISS$ ).

**Example: ABDOMEN**

Spleen Laceration NFS =AIS -2

**CHEST**

Bilateral lung contusion =AIS-3

Bilateral Flail= AIS-5

**HEAD**

Cerebral Contusion, large=AIS-4

**EXTREMITY**

Right patella Fx =AIS-2

(ISS =  $5^2 + 4^2 + 2^2 = 45$ )

**Note:** ISS ranges from 1 to 75. An ISS of 75 can be derived in one of two ways:

- 1. AIS 5 injury in each of three body regions ( $5^2 + 5^2 + 5^2 = 75$ )
- 2. A single AIS 6 injury (it is not squared).

**New Injury Severity Score (NISS)**- NISS is calculated as the sum of the squares of the top three scores regardless of body region. From the above example:  
NISS=  $3^2 + 5^2 + 4^2 = 50$

**The Trauma Injury Severity Score (TRISS)**- TRISS is automatically calculated when you have an ISS Score. It tells if the patient should/should not survive the injuries sustained (probability of survival) based on patient’s characteristics. The elements used in this calculation are: RTS, Age, Age Units, Injury Type (Blunt or Penetrating).

**Note:** The TRISS score will not generate on Burn patients and Direct Admits due to the absence of initial vitals (RTS) on ED screen.

For more information on Trauma Scoring visit [www.trauma.org](http://www.trauma.org) and search for “scoring systems.”

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## Physiological Scoring

**Glasgow Coma Scale-** The GCS is scored between 3 and 15, 3 being the worst, and 15 the best. It is composed of three parameters:

### Score Best Eye Response (4)

- 1 No eye opening.
- 2 Eye opening to pain.
- 3 Eye opening to verbal command.
- 4 Eyes open spontaneously.

### Best Verbal Response (5)

- 1 No verbal response.
- 2 Incomprehensible sounds.
- 3 Inappropriate words.
- 4 Confused.
- 5 Orientated.

### Best Motor Response (6)

- 1 No motor response.
- 2 Extension to pain.
- 3 Flexion to pain.
- 4 Withdrawal from pain.
- 5 Localizing pain.
- 6 Obeys Commands.

**Note: If a patient does not have a numeric GCS recorded, but With documentation related to their level of consciousness such as “AAOx3,” “awake, alert and oriented,” or “patient with normal mental status,” interpret this as GCS of 15 IF there is not other contraindicating documentation.**

**Revised Trauma Score** -The RTS is scored from the first set of vital signs obtained on the patient, and consists of GCS Total, Systolic Blood Pressure and Respiratory Rate. Values range from 0 to 7.8408. The system will automatically calculate the value. If either of these values are missing (RR, SBP, & GCS) then the value will not calculate.  
 **$RTS = (0.2908)RR + (0.7326)SBP + (0.9368)GCS = RTS \text{ Score}$**

## AIS Coding 2005

### To use the AIS Coder in the CV4 Registry

#### Go to Diagnoses/Coding Section

1. Select AIS version 2005.
2. Click Coding Module at the bottom of the screen. The DI Coder screen will appear.
3. Select the AIS Coder to select the applicable AIS button in each category under available choices, double click your selection or you can select the AIS by ICD screen to manually select from the pick list choices of the ICD 9 codes and click ok. At this point you may reorder, edit or delete.
4. Click continue and you will return back to the coding section screen.
5. Repeat the steps for each injury site of the patient and save.

## Tri-Code 2005

### To use the Tri-Code in the CV4 Registry

#### Go to Diagnoses/Injury Narrative

1. Click Coding Module at the bottom of the screen. A pop-up box will appear asking “2005 coding” select yes.
2. The DI Coder screen will appear. Enter the description of the injury and select the Tri Code button. The ISS and diagnoses will appear.
3. At this point you may select AIS to ICD screen to reorder, edit or delete the code and return to the Diagnoses screen to save.

### Other helpful tools when using the Tri-Code 2005

1. Common abbreviations may be used.
2. Enter all of a patient's injuries.
3. Do not use R/O, possible, or probable injuries unless you begin the line with @.
4. When using numbers and words together, always separate the number and word with at least one space. (e.g., 2 cm, 150 cc or 6 X 3 (dimensions) the exception is the entry of multiple injuries. (e.g., “scalp lacs X 3”)
5. When stating percentages, use number and % sign with no space between. (e.g., 15%)
6. Penetrating injuries should include GSW, stab, impalement, etc. Include the entrance site in the description. Enter the cause only once with the entrance site, then list injuries.